

Savannah State College
32.03 N Latitude 81.07 W Longitude 11 Meters AMSL Time Zone -5

July 2001

Global Solar Radiation on a Horizontal Surface
Hourly Integrated and Daily Totals
Instrument: Eppley PSP
Watt-Hours per Square Meter

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	24	93	282	571	437	628	991	887	566	503	28	120	113	38	11	0	0	0	0	5292
2	0	0	0	0	0	20	100	178	495	546	624	447	570	762	557	540	399	160	33	0	0	0	0	0	5433
3	0	0	0	0	0	11	141	276	545	650	790	680	717	742	462	91	294	269	63	11	0	0	0	0	5743
4	0	0	0	0	0	12	62	164	405	492	809	706	788	526	183	68	21	108	72	10	0	0	0	0	4427
5	0	0	0	0	0	15	127	332	502	406	800	716	970	933	770	577	448	215	102	11	0	0	0	0	6925
6	0	0	0	0	0	19	121	312	509	692	818	925	919	933	852	685	500	234	97	27	0	0	0	0	7641
7	0	0	0	0	0	14	109	323	510	686	642	532	820	508	360	604	367	182	84	7	0	0	0	0	5748
8	0	0	0	0	0	19	104	283	470	636	760	590	597	405	351	468	401	163	47	4	0	0	0	0	5300
9	0	0	0	0	0	18	83	297	561	444	387	251	332	905	859	512	317	79	49	4	0	0	0	0	5097
10	0	0	0	0	0	14	96	268	462	655	784	879	727	682	542	618	448	239	119	20	0	0	0	0	6553
11	0	0	0	0	0	22	112	283	459	632	688	737	600	581	545	621	452	311	30	5	0	0	0	0	6079
12	0	0	0	0	0	22	125	296	459	636	773	843	751	626	382	132	33	32	16	1	0	0	0	0	5128
13	0	0	0	0	0	5	47	174	384	527	638	560	533	768	138	584	164	132	49	17	0	0	0	0	4719
14	0	0	0	0	0	15	115	312	516	707	855	938	973	945	843	688	491	281	92	9	0	0	0	0	7780
15	0	0	0	0	0	16	83	272	424	338	395	468	326	414	353	510	435	270	94	12	0	0	0	0	4410
16	0	0	0	0	0	15	112	289	446	572	818	802	862	864	801	697	463	278	88	11	0	0	0	0	7118
17	0	0	0	0	0	16	110	262	419	650	743	867	969	941	846	691	498	293	96	17	0	0	0	0	7419
18	0	0	0	0	0	16	105	296	487	682	828	655	580	863	748	472	465	247	79	6	0	0	0	0	6531
19	0	0	0	0	0	12	89	265	406	514	805	692	542	412	789	581	474	254	74	9	0	0	0	0	5918
20	0	0	0	0	0	13	42	107	192	169	141	159	182	321	220	91	291	223	55	9	0	0	0	0	2214
21	0	0	0	0	0	9	56	102	200	101	500	170	254	484	702	673	504	295	97	12	0	0	0	0	4159
22	0	0	0	0	0	12	100	303	467	502	614	873	803	685	795	533	410	246	34	8	0	0	0	0	6386
23	0	0	0	0	0	3	91	311	374	355	550	713	631	869	158	275	166	140	36	3	0	0	0	0	4677
24	0	0	0	0	0	9	22	105	309	457	537	600	701	707	166	282	402	209	83	19	0	0	0	0	4608
25	0	0	0	0	0	8	69	254	357	410	508	727	499	671	456	223	132	162	80	13	0	0	0	0	4569
26	0	0	0	0	0	7	50	228	491	500	426	749	798	94	131	111	63	41	25	7	0	0	0	0	3719
27	0	0	0	0	0	11	95	283	396	325	570	657	413	706	533	388	199	127	103	2	0	0	0	0	4808
28	0	0	0	0	0	8	100	265	426	558	502	320	116	192	288	334	188	93	66	5	0	0	0	0	3462
29	0	0	0	0	0	9	93	270	469	652	801	891	470	477	599	467	489	254	94	5	0	0	0	0	6040
30	0	0	0	0	0	8	41	116	220	435	462	688	637	767	458	508	76	19	5	1	0	0	0	0	4442
31	0	0	0	0	0	11	90	206	425	442	711	918	888	799	831	644	430	267	89	8	0	0	0	0	6759
Avg	0	0	0	0	0	13	90	249	431	510	642	669	641	650	523	442	327	191	67	9	0	0	0	0	5455
S D	0	0	0	0	0	5	29	69	96	151	171	223	236	225	248	216	161	85	30	6	0	0	0	0	1300
S/A	0	0	0	0	0	0.39	0.32	0.28	0.22	0.3	0.27	0.33	0.37	0.35	0.47	0.49	0.49	0.44	0.44	0.67	0	0	0	0	0.24
Min	0	0	0	0	0	3	22	102	192	101	141	159	116	94	131	28	21	19	5	0	0	0	0	0	2214
Max	0	0	0	0	0	24	141	332	571	707	855	991	973	945	859	697	504	311	119	27	0	0	0	0	7780
n	0	0	0	0	0	194	372	372	372	372	372	372	372	372	372	372	372	372	372	161	0	0	0	0	5191

Daylight Data Recovery: 0.0% missing; 0.0% exceed the 15% QC threshold -- 5192 total daylight measurements.

Instrument: Eppley PSP Serial Number: 28401F3 Calibration Factor: 7.980 μV/W/m² Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (*) are not used in monthly statistics.

July 2001

Estimated Direct Normal Solar Radiation
 Hourly Integrated and Daily Totals
 Instrument: Calculated
 Watt-Hours per Square Meter

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily	
1	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
2	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
3	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
4	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
5	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
6	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
7	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
8	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
9	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
10	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
11	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
12	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
13	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
14	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
15	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
16	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
17	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
18	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
19	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
20	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
21	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
22	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
23	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
24	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
25	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
26	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
27	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
28	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
29	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
30	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
31	0	0	0	0	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0	*	
Avg	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	*
SD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	0
Max	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	N/A	0
n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daylight Data Recovery: 100.0% missing; 0.0% exceed the 15% QC threshold -- 5192 total daylight measurements.

Instrument: Calculated Serial Number: Estimated Calibration Factor: Global = Diffuse + Direct * COS (Zenith Angle) Calibration Date: N/A

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (*) are not used in monthly statistics.

Savannah State College
32.03 N Latitude 81.07 W Longitude 11 Meters AMSL Time Zone -5

July 2001

Diffuse Solar Radiation (Shadow Band) on a Horizontal Surface
Hourly Integrated and Daily Totals
Instrument: Eppley PSP
Watt-Hours per Square Meter

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Daily
1	0	0	0	0	0	23	89	248 ?	263 ?	292 ?	457 ?	?	578 ?	432 ?	289 ?	27	108	104	35	11	0	0	0	0	2956 ?
2	0	0	0	0	0	18	92	164	387 ?	398 ?	560	414	528	463 ?	392 ?	253 ?	260 ?	153	31	0	0	0	0	0	4113 ?
3	0	0	0	0	0	10	131 ?	244	?	459 ?	564 ?	430 ?	554 ?	478 ?	317 ?	85	246	232	61	11	0	0	0	0	3820 ?
4	0	0	0	0	0	11	57	150	346	398 ?	?	457 ?	457 ?	408	177	63	19	99	65	8	0	0	0	0	2714 ?
5	0	0	0	0	0	15	122	282 ?	323 ?	209 ?	550 ?	540 ?	?	?	469 ?	324 ?	314 ?	176	101	11	0	0	0	0	3436 ?
6	0	0	0	0	0	18	115	289	?	?	?	?	?	?	?	?	?	207	97	26	0	0	0	0	751 ?
7	0	0	0	0	0	13	106	260 ?	?	?	369 ?	357 ?	675 ?	477	335	439 ?	274 ?	174	82	7	0	0	0	0	3571 ?
8	0	0	0	0	0	17	96	275	418 ?	594 ?	691 ?	467 ?	565	374	324	420	376	153	44	4	0	0	0	0	4818 ?
9	0	0	0	0	0	17	78	287	404 ?	406	355	228	305	566 ?	?	376 ?	237 ?	72	46	4	0	0	0	0	3381 ?
10	0	0	0	0	0	13	90	258	418 ?	?	?	?	599 ?	583 ?	522	361 ?	394 ?	192 ?	119	19	0	0	0	0	3568 ?
11	0	0	0	0	0	20	104	265	431	627 ?	648	685 ?	525	537	477	446 ?	307 ?	266 ?	29	5	0	0	0	0	5373 ?
12	0	0	0	0	0	21	118	279	438	?	?	730 ?	530 ?	444 ?	355	121	31	30	15	1	0	0	0	0	3112 ?
13	0	0	0	0	0	5	43	160	359	497	585	505	426	552 ?	124	325 ?	151	121	44	15	0	0	0	0	3911 ?
14	0	0	0	0	0	14	111	271 ?	?	?	?	?	?	?	?	?	?	277	92	9	0	0	0	0	774 ?
15	0	0	0	0	0	15	78	255	369 ?	318	376	356	240	293	325	370 ?	373 ?	263	94	11	0	0	0	0	3737 ?
16	0	0	0	0	0	14	102	283	248 ?	317 ?	600 ?	451 ?	408 ?	619 ?	634 ?	?	405 ?	273	88	11	0	0	0	0	4454 ?
17	0	0	0	0	0	15	106	255	301 ?	438 ?	562 ?	699 ?	?	?	?	?	?	266	96	17	0	0	0	0	2755 ?
18	0	0	0	0	0	15	112	293	?	?	?	348 ?	404 ?	583 ?	589 ?	437	393 ?	243	79	6	0	0	0	0	3502 ?
19	0	0	0	0	0	11	84	250	341 ?	476	?	453 ?	399 ?	309	?	490 ?	392 ?	244	69	8	0	0	0	0	3525 ?
20	0	0	0	0	0	12	38	97	176	154	131	147	168	297	198	83	240	207	50	8	0	0	0	0	2005
21	0	0	0	0	0	8	51	91	182	93	368 ?	156	232	449	565 ?	541 ?	?	265 ?	101	12	0	0	0	0	3114 ?
22	0	0	0	0	0	11	98	260 ?	359 ?	462	529	634 ?	540 ?	517 ?	568 ?	361 ?	304 ?	217	32	8	0	0	0	0	4902 ?
23	0	0	0	0	0	3	86	255 ?	327	297	271 ?	397 ?	516	414 ?	146	250	153	130	36	5	0	0	0	0	3286 ?
24	0	0	0	0	0	8	21	97	284	424	442	504	601 ?	615 ?	155	227	362	200	78	18	0	0	0	0	4036
25	0	0	0	0	0	7	67	183 ?	322	362	485	628 ?	464	523 ?	429	204	121	150	74	12	0	0	0	0	4031
26	0	0	0	0	0	6	45	153 ?	380 ?	426 ?	396	583 ?	603 ?	83	118	101	57	38	22	7	0	0	0	0	3020 ?
27	0	0	0	0	0	10	93	261 ?	301 ?	300	505	463 ?	292	543 ?	424 ?	290	180	116	88	2	0	0	0	0	3869 ?
28	0	0	0	0	0	7	102	267	350 ?	400 ?	411	303	109	178	269	310	174	86	63	5	0	0	0	0	3035
29	0	0	0	0	0	8	91	264	388 ?	?	?	685 ?	367	366	491 ?	337 ?	390 ?	211	94	4	0	0	0	0	3696 ?
30	0	0	0	0	0	8	39	106	201	400	422	542 ?	558	549 ?	337 ?	124 ?	72	18	4	1	0	0	0	0	3381 ?
31	0	0	0	0	0	10	86	195	387 ?	409	536 ?	?	659 ?	658 ?	?	497 ?	337 ?	209 ?	92	8	0	0	0	0	4083 ?
Avg	0	0	0	0	0	12	85	226	335	382	470	468	456	456	361	291	247	174	65	9	0	0	0	0	3443 ?
S D	0	0	0	0	0	5	28	65	74	122	128	159	151	137	154	148	125	77	30	6	0	0	0	0	989
S/A	0	0	0	0	0	0.4	0.33	0.29	0.22	0.32	0.27	0.34	0.33	0.3	0.43	0.51	0.5	0.44	0.46	0.65	0	0	0	0	0.29
Min	0	0	0	0	0	3	21	91	176	93	131	147	109	83	118	27	19	18	4	0	0	0	0	0	751
Max	0	0	0	0	0	23	131	293	438	627	691	730	675	658	634	541	405	277	119	26	0	0	0	0	5373
n	0	0	0	0	0	194	369	330	204	214	196	194	232	214	236	215	243	347	370	161	0	0	0	0	3726

Daylight Data Recovery: 0.0% missing; 28.2% exceed the 15% QC threshold -- 5192 total daylight measurements.

Instrument: Eppley PSP Serial Number: 17862F3 Calibration Factor: 7.530 μV/W/m² Calibration Date: 05/1998

Data & Flag	Hour Column	Day Column
<value> *	> 20% Missing	> 10% Missing
<value> ?	> 20% Fail QC	> 10% Fail QC
<blank> *	> 90% Missing	> 90% Missing
<blank> ?	> 90% Fail QC	> 90% Fail QC

Note: Daily values with a missing flag (*) are not used in monthly statistics.

Prepared by: Afshin M. Andreas, NREL